

# DOCUMENT RESUME

ED 290 314

EC 201 778

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 TITLE A Study of Deaf Cultural Identity through a Comparison of Young Deaf Adults of Hearing Parents and Young Deaf Adults of Deaf Parents.  
 PUB DATE 3 Apr 87  
 NOTE 93p.; Paper presented at Student Research Colloquium, University of Pittsburgh (Pittsburgh, PA, April 3, 1987).  
 PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)  
 EDRS PRICE MF01/PC04 Plus Postage.  
 DESCRIPTORS \*Cultural Differences; Cultural Influences; \*Deafness; Family Influence; Self Concept; Sign Language; Socioeconomic Influences; \*Values; Young Adults

## ABSTRACT

The study compared two groups of young deaf adults, one whose primary family of socialization was deaf (N=12), and one whose primary family of socialization was hearing (N=12), to determine if differences existed in the sociocultural factors of identification with deaf cultural beliefs, experience with sign language, participation in adaptive networks, and socioeconomic status. The "Deaf Culture Intentionality Scale" was developed to assess degree of agreement with commonly held beliefs about deafness held in the deaf community. Other measures assessed language background, socioeconomic status, and adaptive networks. Results did not indicate great differences between groups, suggesting that by young adulthood, deaf children of hearing parents have been enculturated into the deaf community. Over 90 references are listed, and the survey forms are provided in the appendixes. (DB)

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A STUDY OF DEAF CULTURAL IDENTITY  
THROUGH A COMPARISON OF YOUNG DEAF ADULTS  
OF HEARING PARENTS  
AND YOUNG DEAF ADULTS OF DEAF PARENTS

by

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Paper presented at the  
1987 Student Research Colloquium  
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April 3, 1987

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## I. INTRODUCTION

Research involving Deaf adults has been largely demographic, psychological, and anecdotal in nature until recently, focusing on the personality, attitudes, or "characteristics" of Deaf individuals apart from the environmental events that impinge upon them. Throughout history Deaf individuals have been accused, from a hearing perspective, of a host of liabilities including mental retardation, concreteness, dependency, conceptual deficiency, educational retardation, suspiciousness, isolation from general society and more prone to emotional disturbance than "normal" people (Brown, 1969). According to Woodward and Markowicz (1980), a deaf person in encounters with outsiders, e.g. parents, teachers, doctors, speech therapists, counselors, psychologists, religious workers, and employers, deaf persons have been treated as a pathological individuals. Their membership in a minority culture was ignored, and the deaf person was viewed as a defective hearing person.

As a result of sociologists and anthropologists, many of whom are deaf, utilizing ethnographic techniques to describe attitudes, values, and behaviors of particular deaf communities (Jacobs, 1980; Higgins, 1980; Woodward & Markowicz, 1980; Johnson & Erting, 1982; Erting, 1982; Padden, 1980; Meisegeier, 1982; Padden & Markowicz, 1975; Stokes, Bernard, & Padden, 1980; Bienvenu & Colonomos, 1986), a marked shift from a pathological model toward a social model of deafness has occurred. According to Meadow

(1982), there is a need for theoretically informed research in virtually all areas related to deafness and the socialization process. Meadow further stressed the need for a sound theoretical research base for future investigations.

Researchers following the social model include Johnson and Erting (1982). These investigators proposed the theoretical position that deafness is an ethnic phenomenon, not primarily, a physical disability. While some degree of hearing loss is necessary for a person to be ethnically Deaf (Higgins, 1980; Johnson & Erting, 1982), the loss of hearing per se is not the critical variable. A person may have only a minor hearing loss in audiological terms but still be Deaf according to social and cultural criteria. Much of the research about deaf adults has confirmed the fact that some people with very profound hearing losses audiologically, may not be considered Deaf according to those same criteria. Johnson and Erting (1982) described the two kinds of social groups important to Deaf people, the ethnic group, emerging from interaction among Deaf people, and the deaf community, emerging from interaction between deaf and hearing people.

The boundary tends in both cases to emerge with the symbolic choice of sign language varieties. But the symbols in one case originate from within the traditions of the Deaf ethnic group, and in the other case from the norms of mainstream American society and the position of hearing impaired people as a stigmatized group embedded within it. (1982, p. 234).

Socialization involves role-training or training for social participation according to Levine (1969). Denzin (1977) believes the socialization process creates the link between self and society. Certain sociological variables that influence the

tional, community, religious, economic, and political. Cultural, racial, and socio-economic status of parents usually affects the socialization of their children to a large degree.

From a sociological standpoint, deafness strikes randomly; deaf people come from all races, regions, classes, and religions. However, by adulthood, those deaf-born or deaf from an early age become demographically quite distinct (Benderly, 1980), forming a social and cultural group, strongly cohesive and highly endogamous (Schein & Delk, 1974).

Some of the same distinctions those in mainstream culture use to differentiate among themselves are also used by members of the deaf community such as race, educational attainment and sophistication, and age. Differentiations such as social class, sex and religious affiliation are important to a lesser degree according to Higgins (1980).

The social, religious, economic, and political factors have not been evaluated extensively from the point of view of their influence on deaf individuals as children and thus represents a gap in our understanding of socialization and deafness (Meadow, 1982). How deaf children and adolescents of hearing parents and adolescents are socialized into the deaf adult community remains a point of speculation (Higgins, 1980). All of the factors to be mentioned in the review contribute partially -- primary family of socialization, degree and age of onset of hearing loss, language and communication modes, and educational background effect employment, socio-economic status, friendships, marriage and parenting, and social, religious, and political

affiliations of young deaf people. Yet, the circumstances of deaf children of hearing parents present some unique difficulties for those children and their parents.

Although parents are usually the primary persons responsible for socialization of their children, because of the communication difficulties of deaf children, other agents and institutions, such as Deaf surrogate parents and schools for the deaf, assume this role and have a greater impact on a deaf person's acquisition of social skills, personality development, and attitudes and values (Meadow, 1982). Therefore, in contrast to other marginal groups where children and adults share the same subculture, the majority of deaf children are the only members of their families who are deaf or hearing impaired (Rawlings & Jensema, 1977). Consequently, most deaf children grow up in a "hearing world". Unlike other minority children, deaf children of hearing parents may not have other minority members in the family who can understand them and provide appropriate role models and support for them.

Historically, Deaf culture was docile in nature (Greenberg, 1970), but increasingly Deaf people have developed an awareness and appreciation of their community and cultural values which they are reluctant to ignore in favor of the norms and values imposed upon them by the hearing society. Many Deaf people consider themselves to be bi-cultural (McIntire & Groode, 1982).

Erting (1982) emphasized the importance of recognizing two underlying themes of deafness which must be taken into account in order to understand deaf culture. The first is that deafness is primarily a visual experience, and secondly, deafness results in a



dependence on those who are not deaf. Furthermore, Erting (1982) pointed out that a lack of hearing results in a basically different organizational structure for the lives of deaf people in comparison with their hearing counterparts. The dependence on vision is the central organizing principle of deaf people's lives. They need the same amount of information as hearing individuals do to function successfully in society, but deaf people have only one sense with which to acquire it. Consequently, deaf people must structure their lives in order to acquire information and to communicate with others as efficiently as possible (Erting, 1982).

Deaf people must at the same time interact with and depend upon hearing people. For most deaf people this dependency begins at birth when they are born to hearing parents. It is perpetuated by schools which have not equipped deaf individuals to compete with their normally hearing peers in society where educational and socioeconomic advancement depend upon academic skills. Schools have failed to take into account the sociocultural aspects of deafness and their implications for education. This dependency continues into employment, religion and in their daily interaction with hearing people in the society (Erting, 1982).

As members of a minority culture, Deaf individuals have the task not only of becoming a part of the deaf community, but also the task of becoming a part of the mainstream culture, which translates to the "hearing world". In their everyday interactions with the hearing society, deaf people are made aware of their exclusion from full participation in the mainstream culture. The need for the deaf individual to achieve a social identity,

based on a need to share similar experiences with others like themselves, and the need to achieve a personal identity, based on the biological and emotional bond between their parents and themselves, often is manifested in an ambivalence toward both Deaf society and hearing society (Erting, 1982). According to Erting, "The challenge to integrate these two identities . . . is perhaps the greatest and most constant challenge faced by the deaf individual." (1982, p. 8).

How deaf individuals meet this challenge through shared life experiences in the deaf cultural group, and the influences that primary family of socialization, degree and age of onset of hearing loss, language and communication modes, and educational background have on employment, socio-economic status, friendships, marriage and parenting, social, religious, and political affiliations within their socialization process will be the focus of this investigation.

The purpose of this present proposal is to compare two groups of young deaf adults, one whose primary family of socialization was deaf, and one whose primary family of socialization was hearing to determine if differences exist by young adulthood between the two groups in the sociocultural factors of identification with Deaf cultural beliefs, experience with sign language, participation in adaptive networks, and socioeconomic status.

#### Significance of the Study

Awareness of the attitudes and beliefs that young deaf adults have concerning Deaf culture and their degree of involvement within that culture is critical for hearing parents of

deaf children, hearing professionals who serve deaf individuals, and prospective employers of deaf people. How deafness impacts on the socialization process in the case of deaf adults of deaf parents and deaf adults of hearing parents needs to be researched within a sound theoretical framework.

#### Limitations and Delimitations of the Study

The results of this pilot study will only be generalizable to young deaf adults in the Southwestern Pennsylvania geographical area due to the regional differences that exist with respect to Deaf cultural attitudes and beliefs. The cooperation of subjects in this volunteer sample will also affect the outcome of this study.

## II. REVIEW OF THE LITERATURE

### A. Theoretical Framework

The theory of reasoned action is a modified version of Dulany's (1968) earlier theory of propositional control, which discussed prediction of a specific behavioral intention in a well-defined situation. It assumed that most behavior is under volitional control and that a person holds or forms a specific intention that influences a person's subsequent overt behavior. The intention refers to performance of a given action in a given situation.

According to Fishbein and Ajzen's (1975) modification of Dulany's theory, the intention to behave in a particular manner is the result of a combination of beliefs, evaluations and motivation. The eventual outcome is determined by the convergence of two streams of influence: one is the individual's beliefs about the consequences of the behavior and a determining of the value of those outcomes, together called the attitude toward the behavior. The other is the individual's perception of the expectations that other significant people have of his or her behavior and the individual's motivation to comply with those expectations, together called the subjective norm. These influences and determinants of intention are represented by the formula:

$$I = (A)_b w_1 + (SN)_w w_2$$

The Fishbein and Ajzen model allows for the comparisons of the relative weighting ( $w_1$  and  $w_2$ ) of the factors present in an individual's attitude and subjective norm components. Aspects of Deaf and hearing culture including attitudes toward hearing im-

pairment, identification with the Deaf world or hearing world, language and communication modes, family values, and educational background are mediated in the model through the attitude component.

The other aspects of Deaf and hearing culture -- affiliations with social, religious, professional and political groups, socio-economic status, occupation, friendships, and race are mediated through the subjective norm component according to Fishbein and Ajzen (1975). The second or normative component of the theory, the subjective norm (SN) deals with the influence of the environment on behaviors. The model is based on the theory of reasoned action, which suggests that behavior is jointly determined directly by one's attitudes about the behavior in question and by the influence of social groups. Demographic variables modify behavior only through their influence on the major attitudinal or social components. In the studies to be reviewed, the attitudes, norms and values of the mainstream culture as they impinge on deaf individuals will be discussed from a sociological perspective within the framework of the Fishbein and Ajzen theory of reasoned action model (1980).

#### B. Attitudes, Values and Norms of Mainstream Culture

Hearing loss from a mainstream socio-economic perspective is a negatively evaluated characteristic, but from the perspective of the Deaf community, it is positively evaluated (Jacobs, 1980; Bienvenu & Colonomos, 1986). The social values that influence Deaf people are similar to those for other socio-economic minorities. Higgins (1980) used Zecker's (1963) concept "outsiders" to

describe deaf people who are in a world where sounds are vitally important and dominated by those who hear.

In the United States there are a number of rigid criteria for the assimilation of non-mainstream individuals into the mainstream socio-economic system. One criterion is the use of standard varieties of English. Deaf people are subject to this criterion, although most deaf people are approaches standard varieties. According to Furth (1966) 88% of deaf adults do not achieve linguistic competence in a spoken language. Oral English has nevertheless become the primary indicator of acceptability for assimilation and of opportunities for social mobility (Miller, 1970; & Northcott, 1978).

The controversy about oral English for deaf individuals dates back to the mid-eighteenth century and pitted the founders of two opposed methods of instruction against each other. In 1775, the Abbe Charles Michel de l'Epee established the first public school for deaf children in Paris. The method of instruction consisted of the language of signs. A German contemporary, Samuel Heinicke, became known as the originator of the oral method, by which deaf children are taught through speech and lipreading. The controversy between the two schools -- manual and the oral -- began and lasted until the 1970's (Markowicz, 1980).

Heinicke developed the oral method because he felt that unless Deaf people learned to speak and lipread, they would have no language and they would be unable to think, or at best they might think only in concrete terms. The attitude toward deaf

persons dating back to the Greek philosophers (DeLand, 1968), stemmed from the concept that they were incapable of being educated because the idea that thought occurred through the medium of articulated words prevailed at that time. Methods of instruction of the Deaf began appearing toward the end of the sixteenth century in different parts of Europe. The change in attitude toward educating the Deaf was significant and enabled them to take part to some degree in the culture around them.

Throughout the intervening years of receiving instruction, deaf people have gained some degree of acceptance in the society at large (Markowicz, 1980). Today, oralism has given way somewhat to the Total Communication philosophy, enabling a variety of signing systems that retain English structure to be used in the schools. Denton (1974) eloquently described the Total Communication philosophy as:

. . . a way of thinking and feeling about deafness and deaf people. It is based upon an unconditional faith in the abilities of deaf people. It is based upon recognition that the Language of Signs is the cultural language of most deaf people (p. 225).

Sign language has also gained a greater degree of public acceptance through artistic productions, such as the well-known television show, "Sesame Street," the television special, ". . . And Your Name Is Jonah," and the Emmy winning series "Rainbow's End." The Broadway play "Children of a Lesser God," by Mark Medoff has won three Tony awards and the follow-up film provides media exposure for deaf actors and actresses as well as the first "Oscar Award" for best actress in a starring role, Marlee Matlin, a deaf woman.

The National Theatre of the Deaf which has performed on Broadway, the Lincoln Theatre in New York City, on nationwide television, in legitimate theatres throughout the country, and before college audiences. Some positive effects of the appearance of the National Theatre of the Deaf include the employment of deaf actors, actresses, directors, and producers. These events have greatly enhanced the general public's image of deaf people and the usefulness and beauty of their sign language.

With few exceptions, however, fully assimilated, hearing impaired people have relatively minor hearing losses, or have become deaf well after their acquisition of vocal English. Furth pointed out:

Our educational and scientific atmosphere does not permit us really to accept deafness. . . the deaf are now accepted as being possibly equal to the hearing in intelligence, but only insofar as they succeed in learning the language of the hearing. Common opinion about the interdependency of language and thinking has hardly changed (1966, p.28).

As with other minority groups, American society is willing to accept Deaf people on the condition that they accept its values, represented here by its language. From the perspective then, of mainstream norms, oral English would be most highly valued, and manual codes for English (MCE) would be next.

#### Education in the Mainstream

The concept of mainstreaming deaf children in the same schools as normal hearing children was termed "co-education", and dates back to 1821 in Europe (Gordon, 1884; Mulholland, 1969; Bender, 1970; Lowe, 1981). American educators were not influenced by these events in Europe until the 1800's. The goal of main-



streaming, according to Heinicke, was to assist deaf people in their participation in the social and professional community and to enable them to become contributing members of society (Schmael, 1970). The main component of mainstreaming was in the early years, oralism (Haycock, 1945; Hodgson, 1954; Miller, 1970; Simmons, 1971).

Within the educational establishment, deaf people have had little input in determining their desired goals, until recently. Since the passage of P.L. 94-142, terms such as least restrictive environment, mainstreaming and most restrictive environment have been used in describing learning environments for handicapped children. The prevailing interpretation of least restrictive environment (LRE) involves the physical proximity of handicapped children to non-handicapped children, forming a hierarchical system in which the regular classroom is perceived to be the "least restrictive environment."

Most groups of handicapped children speak and hear English, and therefore, are part of the community and culture of the hearing majority unlike the deaf child whose problem is not physical access, but one of understanding of basic language once placed in that group. Society has imposed its values on deaf students by isolating them in an environment limiting their human interaction, communication, and full participation in the educational process. According to Denton (1986), a deaf child who is indiscriminately integrated into a regular school program even though that child may be functionally unable to initiate or maintain social, psychological, or educational contact with his or her

seatmates is in a most restrictive environment. While doing independent evaluations of the placement of handicapped children, Denton (1980) witnessed situations in which deaf children were integrated into a regular classroom setting in a large metropolitan elementary school system. During the course of a full school day not one single conversation occurred with any other child in the school, hearing or deaf. Denton (1986) contended that the basic principles of the least restrictive environment concept presume in favor of placement in the regular educational environment and that that presumption is discriminatory for deaf and hearing impaired children, even though the intent of the law is just the opposite. The current mainstreaming movement has distressed the deaf community because it may be changing the role of the schools for the deaf to some degree (Bienvenu & Colonomos, 1986).

Recently, Congress passed the Education of the Deaf Act (Davila, 1986) which will enable a commission, on which deaf people are represented, to consider the effects of the Education of the Handicapped Act (PL 94-142, 1975) and to study particular implications of deafness on education. Congress is recognizing that what serves the needs of a blind or learning disabled student does not necessarily benefit one who is deaf (Davila, 1986).

The basic goal of education of the deaf is the ultimate social, cultural, and economic integration into the mainstream. How the degree of this integration is measured and what the characteristics of those persons are who achieve it have not been investigated within a sound theoretical framework. Denton (1986)

defined integration into the mainstream as being measured by economic independence on the part of the adult who is free to move socially and culturally among those persons whom he chooses, including those who are deaf and those who are hearing.

All of those who live within the mainstream culture are socialized to some degree within that culture. Some of the characteristics that members of the dominant culture use to differentiate among themselves are also used by members of the deaf community in organizing relationships with one another (Higgins, 1980). These factors include race, age, and educational attainment.

#### Race

McIntyre and Groode (1982) take the perspective that many of the problems of deafness are like the problems of being Black in society today. This involves frustration and anger in Deaf people as a result of the impositions and requirements made upon them by the mainstream society. These impositions were manifested in part through the educational establishment and have been particularly evident in the administration of educated hearing people, and because deaf people are less educated than hearing people as a group, they are more inclined to be prejudiced. However, the deaf community is more prejudiced in favor of Blacks than the general hearing public according to Higgins (1980).

#### Age

There are few deaf children in the deaf community, consequently, it is appropriate to speak of the adult deaf community (Higgins, 1980). Unless deaf adults attended a residential school program as children, they are likely to be isolated in a hearing

world. While age does differentiate members of the deaf adult community, members of various ages do associate with each other in formal organizations for the deaf as well as in clubs and religious groups.

### Educational Attainment

As with hearing communities, deaf people generally intimately associate with other deaf people of their same intellectual sophistication and educational level (Higgins, 1980). The well-educated deaf people, especially those who are postlingually deaf and have acquired intelligible speech, are likely to become leaders in the deaf community (Jacobs, 1980). However, while educational attainment and general sophistication separate members of the deaf community, the commonality of deafness unites people of different educational levels at clubs and at religious and social gatherings.

### Marriage and Parenting

Research of the past two decades has described the cycle of responses of parents who learn that their child is hearing impaired experience (Ogden, 1984). The cycle of shock, recognition, denial, acknowledgement, and constructive action is normal for hearing people to experience. Some parents may stay indefinitely at one stage of the cycle, unless they receive counseling. Some hearing impaired parents may experience the shock at learning that their child is also hearing impaired, according to Ogden (1984).

Normal-hearing children begin listening from birth and learn the beliefs, attitudes and values held in common among their

family members, unlike the deaf child who must be explicitly taught these values. The fundamental problem of communication within the family for a deaf child of hearing parents is that parents may be totally unaware of their child's nonverbal communication skills. The parents devalue the child's nonverbal efforts at communicating and focus on the spoken mode of expression to the exclusion of other modes (Ogden, 1984).

As a result of the past decade of research on American Sign Language (ASL) and its acceptance by the professional community and hearing parents (Hoffmeister & Shettle; 1981), many of the hearing parents of deaf children have been provided the opportunity to learn sign language. The sign language systems in use today are based on English structure and grammar, but allow early natural interaction between hearing parents and their young deaf children.

Since it is important to establish communication early to develop and maintain a parent-child bond (Freeman, Carbin, & Boese, 1981), when given the tools to communicate comfortably, deaf children of hearing parents may achieve the psychological, social and linguistic status of deaf children of deaf parents (Schlesinger, 1978). Using sign language enables hearing parents to communicate and interact more like parents of normal hearing children.

In summary, through the value placed on hearing loss and vocal English by the mainstream hearing society, limitations of parental influences as in the case of hearing parents of deaf children, lack of educational achievement and educational imposi-

tions placed on deaf individuals by the mainstream establishment, limitations on the opportunities for employment and the development of economic independence of the deaf population exist.

### C. Values, Beliefs, and Attitudes of Deaf Culture

A culture is a set of learned behaviors of a group of people who have their own language, values, rules for behavior, and traditions. The values of a cultural group are represented in the attitudes and behaviors that the group considers most respected and important. A person may be born into a culture or one can become "enculturated" into a different culture from the one in which s/he grew up in by learning the language, values, and practices of that culture (Meadow, 1982; Bienvenu & Colonomos, 1986).

Deaf people can be born into the culture, as in the case of children of deaf parents. They begin learning the sign language of their parents from birth, just as hearing children learn to speak (Stuckless & Birch, 1966) and sign language acquisition stages are similar to spoken language acquisition stages for young hearing children. Deaf children of deaf parents also learn the beliefs and behaviors of their parents' cultural group. When they enter schools, they serve as linguistic models for the more than 90% of deaf children who do not have deaf parents (Rawlings & Jensema, 1977) and who may become a part of the culture later in life.

Demographics. According to a publication of the National Health Institutes (1982), recent statistical data on the extent of hearing impairment in the general population reported that nearly 2 million U. S. citizens were profoundly deaf. An earlier study

by Schein and Delk (1974) reported that deaf persons in the United States constituted a society of five hundred thousand to one and one-half million.

Defining the Deaf Culture. Until recently, descriptions of deaf people have not focused enough on the normal aspects of their lives as individuals who have a unique cultural and linguistic identity. From the recent descriptive and ethnographic research (Higgins, 1980; Padden, 1980; Markowicz, 1980; Padden & Markowicz, 1975; Stokoe, Bernard, & Padden, 1980; Erting, 1982; Bienvenu & Colonomos, 1986), new insights about the culture of Deaf people structure of American Sign Language (ASL) (Stokoe, 1972) have emerged. Deaf people form groups in which individual needs are met. In Deaf culture, certain behaviors are accepted while others are discouraged.

A distinction between the "deaf community" and Deaf culture is necessary. In most of the discussions of the sociocultural aspects of deafness, the terms community, minority group, ethnic group, subculture, and culture, have often been used interchangeably, in identifying the Deaf group. Higgins (1980) referred to the "deaf community" as consisting not of street addresses, but as creations based on friendships, informal acquaintances, marriages, clubs, bars, publications, religious organizations, etc. Deafness in and of itself is not a sufficient condition for membership in deaf communities, although some degree of hearing impairment is a necessary condition according to Higgins (1980). Membership in a deaf community must be achieved, (Markowicz & Woodward, 1978), and it is achieved through identification

with the Deaf world, shared experiences that result from being hearing impaired, and participation in the community activities (Padden & Markowicz, 1975).

Padden (1980) identified the demographic, linguistic, political and social implications of the "deaf community". On a national level, the people in the deaf community share certain characteristics and react to events around them as a group. On the local level the deaf community is composed of hearing and deaf people, all of whom are not culturally Deaf.

Padden extended the definition of the deaf community that Higgins proposed (1980) to include hearing people who interact on a regular basis with Deaf people and see themselves as working with Deaf people toward common goals as part of the deaf community. For the purposes of this review, the investigator will use Padden's (1980) definition of "deaf community" and Deaf culture will refer to another group to which certain members of the deaf community belong.

#### Macro- and Meso-Systemic Influences

The macro- and meso-systemic influences that impinge upon the lives of deaf individuals include the social, religious, professional, and political groups with which the individuals are associated as well as race, age, education, language, family, peers, employment and socioeconomic status.

#### Social, Religious,

#### Professional, and Political Affiliations.

The deaf community functions as an agent of socialization which helps to shape and to socialize all who participate in that



group (Meadow, 1982). The most prominent group in the deaf community is the National Association of the Deaf (N.A.D.) with branches in every state and a permanent office in Washington, D.C. (Mindel & Vernon, 1971; Jacobs, 1980). This politically powerful and influential organization, established in 1853, was concerned with conditions in schools for the deaf, methods of instruction, better training of deaf industrial workers, and discrimination against deaf drivers and excessive rates of liability insurance for deaf drivers. National meetings are held regularly to actively protect and represent the interests of deaf people. It organizes cultural, athletic, and social events. Presently N.A.D.'s goals include directing research, working to assure the rights of deaf people in Congress, promoting deaf awareness, and distributing literature and special appliances to members of the deaf community. The Association supports a Legal Defense Fund which has established the rights of deaf persons to interpreting services in offices of state service bureaus, providing assistance and advice to parents throughout the nation in cases involving rights under Section 504, P.L. 94-142, has had telecommunication devices (TDD's) installed in state welfare departments to accommodate foster parents who are deaf, and other similar laws. N.A.D. established Junior NAD chapters in many schools for the deaf. It publishes "The Deaf American", which is widely circulated and of interest to deaf people, parents, and professionals (Mindel & Vernon, 1971).

The National Fraternal Society of the Deaf, established in 1901, is both a fraternal organization and an insurance company,

originally established because of discriminatory practices toward deaf persons trying to obtain life insurance (Mindel & Vernon, 1971). This group continues to provide life insurance at reasonable rates for its membership and conducts social functions throughout the United States.

The Gallaudet College Alumni Association (GCAA), founded in 1889 is a world-wide organization whose members are alumni and former students of Gallaudet College. GCAA is indirectly one of the most influential organizations of the deaf because its members have emerged as leaders in almost every other organization of the deaf. GCAA has 48 chapters all over the U.S. and Canada.

The National Fraternal Society, the National Association for the Deaf, and the Gallaudet College Alumni Association on the national and local levels are just a few of the formal reflections of the deaf community (Meadow, 1982; Mindel & Vernon, 1971; Friedman, Friedman, Leeds & Sussman, 1967; Jacobs, 1980).

The American Athletic Association of the Deaf (AAAD), founded in 1945, conducts regional and national sports tournaments. Teams travel across the United States for competitions and once every four years the international deaf olympics is held.

In larger cities, and some smaller communities, there are clubs for the deaf for social and recreational purposes. These organizations are a significant part of the deaf community experience. At clubs for the deaf, ideas are exchanged, friendships formed, and the latest happenings in the community are shared. Clubs usually pay monthly rent and often have difficulties meeting their expenses (Bienvenu & Colonomos, 1986). Except for a few

clubs which are endowed, they usually have inadequate facilities in undesirable neighborhoods (Jacobs, 1980). Certain members do, however, emerge as leaders of the deaf community from the deaf clubs (Hairston & Smith, 1973).

Organizations large and small, national and local, function as primary sources of information for their members and play an important role in the socialization of deaf people into the deaf community. Their leaders and members know the implications of deafness and difficulties encountered by the deaf population.

National religious groups serving the deaf include the International Catholic Deaf Association, the National Congress of Jewish Deaf, the Episcopal Church, American Lutheran Church, Lutheran Church-Missouri Synod, Assembly of God. Baptists, Methodists, Mormons, and other denominations have their own groups for the deaf (Jacobs, 1980).

Services for deaf individuals range from providing an interpreter for the worship services once a month to having a separate church for the deaf with a full-time minister (Jacobs, 1980). The Catholic and Lutheran churches provide parochial schools for deaf children. In some areas active Jewish deaf communities have their own synagogues and social halls. Lutherans and Jewish groups have provided Senior citizen housing units for elderly deaf persons in Los Angeles and New York, respectively (Jacobs, 1980).

Religious teachings are important to some deaf individuals, but worship serves primarily as a social function (Higgins, 1980). The church one attends often depends on where one's

friends go and whether the minister uses sign language. Many ministers, rabbis, and priests provide time in their churches and temples for deaf worshippers. Services may be conducted in speech and sign language. Ordained deaf ministers in many denominations serve the deaf and some of the major religious organizations have auxiliaries specifically for the deaf (Jacobs, 1980; Higgins, 1980; Mindel & Vernon, 1971).

Race. Racial relation in the deaf community are characterized by little interaction between white and Black deaf persons, reflecting the influence of the dominant mainstream culture. Clubs for the deaf are highly segregated (Anderson, 1972; Bowe, 1971) in some areas, however, integration in athletics exists. Geographically, white and Black deaf people are separated, as are their hearing counterparts. Another source of misunderstanding is the sign language used by white and Black deaf persons. According to Woodward (1976), while there are large similarities in the two groups, white and Black deaf people sign differently.

Not all deaf or hearing impaired people, though, identify with Deaf culture. Those who lose their hearing later in life through an accident or as a result of presbycusis do not necessarily desire membership in the community.

Other individuals deaf from birth or an early age, may not develop an identification with the deaf community if they had hearing parents and were educated in schools for the hearing or in oral schools for the deaf. Some members are tolerated, though audiologically deaf, socially they are not (Markowicz, 1980).

Deaf culture is more closed than the deaf community

according to Padden (1980). Members of the Deaf culture share a common language, common beliefs, and common behaviors. Deaf people move freely from one community to another because they possess a common knowledge of the culture. According to Padden (1980), there is a single American Deaf culture with members who live in different communities. Social scientists have observed the existence of a subculture of Deaf people within the larger mainstream community. This subculture is a result of the difficulty Deaf people have in communicating with the hearing society around them, as opposed to the ease with which Deaf people interact among themselves (Boese, 1964).

There are few deaf children in the deaf community, consequently, it is appropriate to speak of the adult deaf community (Higgins, 1980). Unless deaf adults attended a residential school program as children, they are likely to be isolated in a hearing world. While age does differentiate members of the deaf adult community, members of various ages do associate with each other in formal organizations for the deaf as well as in clubs and religious groups (Higgins, 1980).

Educational Background. Whether signed (ASL or English) or spoken (English) language becomes the primary language for a hearing impaired child will vary with interaction among multiple variables including age of identification, beginning education, type of education and hearing status of the parents (Laughton & Jacobs, 1982). If a child attends a residential school for the deaf, that child may be more proficient in ASL using it mostly with peers and using Signed English during classroom activities

only. Schools for the deaf have served as carriers of the culture for the deaf community (Meadow, 1982). The wisdom of older Deaf students is passed on to younger Deaf students in the dorms and in extracurricular events after school and the students become enculturated. A child attending a day school for the deaf may be exposed to Manually Coded English (Hatfield, Caccamise, & Siple, 1978) during the instructional time with teachers and use a Pidgin form of English with peers outside of the classroom.

As with hearing communities, deaf people generally intimately associate with other deaf people of their same intellectual sophistication and educational level (Higgins, 1980). The well-educated deaf people, especially those who are postlingually deaf and have acquired intelligible speech, are likely to become leaders in the deaf community (Jacobs, 1980). However, while educational attainment and general sophistication separate members of the deaf community, the commonality of deafness unites people of different educational background and levels at clubs and at religious and social gatherings.

American Sign Language. A value is a principle, standard, or quality considered worthwhile or desirable. Sign language represents an important value in Deaf culture. As language is the primary vehicle for enculturating children within any society, American Sign Language (ASL) is the colloquial sign language of the Deaf in the United States, and it is usually the first language that a child of Deaf parents in America will acquire. Sign Language (ASL) is as effective as spoken language in transmitting messages according to a study by Bellugi (1972) which demonstrated

that not only could similar information be communicated through ASL as through English speech, but also that the information was conveyed at virtually the same rate.

Deaf individuals are often taught from an early age that the language which they value positively and use as an effective communication mode, American Sign Language, has a negative value in the minds of their hearing parents, teachers, and peers (Jacobs, 1980; Erting, 1982; Bienvenu & Colonomos, 1986). When recognition is given to sign language or other form of manual communication, it is usually by social workers or psychologists who are aware of the limiting nature of English grammar and structure upon their Deaf clients (Markowicz, 1980).

Some Deaf people prefer to use ASL in public speaking situations, and sign-to-voice interpreting is provided for them (Jacobs, 1980). When Deaf people are involved in activities which include hearing people who use English, they may choose to use a variety of manually coded English (MCE) or other Signed English system. Language use with hearing people is rather flexible, but within the cultural group, language is more restricted. Deaf people may accept, respect, and even use the language of the majority group-- English-- but at the same time, they can prefer the language of their cultural group (Jacobs, 1980).

Deaf people have a strong identification with ASL since it is a part of their cultural background, but the use of English allows them to interact with persons who are not Deaf. The age at which a Deaf child is introduced to ASL may signify the beginning of socialization into the deaf community (Meadow, 1982; Bienvenu &

Colonomos, 1986).

The following study illustrates some of the conflicts between hearing and Deaf cultures involving the value placed on language. Padden and Markowicz (1982) observed these cultural conflicts based on a group of hearing impaired Gallaudet College students who were socialized in the hearing society. The experimental group consisted of 21 young deaf adults who at the time of their enrollment at Gallaudet had never met or socialized with other deaf people. Initially, the primary means of communication among deaf people on campus --sign language-- was a foreign language to the subjects. The subjects' arrival on the campus represented a sudden immersion in an alien culture.

The experimental group, selected on the basis of their unfamiliarity with Deaf culture, consisted of 14 females and 7 males. Fifteen of the subjects lost their hearing at birth or before age two (10 females, 5 males). Eight of the subjects had been previously enrolled in post-secondary institutions which had no special programs for the hearing impaired. Eight subjects were 20 years old or older and had encountered some initial problems in forming peer relationships with their classmates. Interviews were conducted in spoken English, and usually began with general demographic questions. The informal interview was then directed toward an in-depth discussion of the subjects' parental and educational background, how they were introduced to Gallaudet, reactions from family and friends to the decision to attend Gallaudet, and eventually, reflections on how their present Gallaudet lifestyle differed from their life-style elsewhere.



Case histories for all of the subjects were compiled detailing their family and educational backgrounds as well as their own reflections on the progress of their socialization into the Deaf culture through their association with the deaf community at Gallaudet. For most of the subjects, "the Deaf people", were the ones who attended schools for the deaf all of their lives. Even though the reality of their deafness was accepted by most of the subjects before arriving at Gallaudet, reflected in their response that they were no different from the other students on campus, they stated that other Deaf students behaved differently and that they were immature or lacked manners.

The kinds of behavior the subjects observed in other Deaf people appeared very different from those of hearing people. One subject was ordered by another student to stop using his voice, demonstrating the valued mode of communication among Deaf people as the visual-manual mode of sign language, not speech. The feelings of being outsiders experienced by the experimental group resulted from their contacts with their Deaf fellow students. By persisting in use of hearing group behaviors around other Deaf students, the subjects found themselves judged severely for their behavior. The subjects found that talking and accompanying behavior necessary for survival as members of their hearing communities, did not allow them to be accepted into activities among Deaf people.

According to Padden and Markowicz (1982), Deaf students attach negative connotations to speech because it represents attempts by the majority culture to deny the value of sign lan-

guage as a preferred means of communication.

As members of the dominant hearing community, the subjects were often asked to provide information about its culture to their fellow Deaf students. Some alumni of residential schools for deaf students viewed the subjects as wise in the ways of the world, and consequently, several became counselors for their dormitory mates, although they were ignored outside of the dormitory room. The subjects were essentially treated like hearing people by their fellow Deaf students because their behavior was incompatible with values shared by Deaf people.

This study illuminates the value of American Sign Language within the Deaf cultural group and the need to recognize Deaf people as comprising a separate cultural entity, particularly for those who wish to join it, but also for outsiders who work with Deaf individuals in a professional capacity. Padden and Markowicz (1982) believe that respect and meaningful interaction between Deaf and hearing people can be encouraged by knowing more about conflicting values in the two cultures. It has been suggested that a prime requisite for a professional entering the field of deafness should be knowledge of that culture (Jacobs, 1980).

Acquisition of language by deaf individuals can be viewed from a bi-cultural as well as a bilingual perspective. The culture in which language acquisition occurs is a realm of considerable current interest as reflected in the literature of sociolinguistics and pragmatics. Several researchers (Meadow, 1972; Hatfield et al., 1978; Erting, 1982) have discussed the acquisition of sign language in the socialization process in the deaf

community. There deaf children are usually enculturated early with ASL as their native language. Since 95% of deaf adults marry other deaf individuals (Jacobs, 1980), it appears that deaf cultural identity is a major aspect in language acquisition.

Marriage and Parenting. Most deaf adults marry, raise their own families, and are able to cope with the life crises of marriage and parenthood (Harris, 1982). When deaf people marry, they bring to the marriage personally established rules for behavior, and personal, social, religious and cultural values as well as a preferred communication modality (Jacobs, 1980; Higgins, 1980; Rice, 1984). If a married couple communicate easily with each other, or if their family of origin had similar family patterns of parenting, their adjustment problems will be minor (Ogden, 1984).

Demographic data (Pimentel, 1978) showed that 79.5% of deaf people have deaf spouses with severe or profound hearing losses; 6.9% have mildly hearing impaired spouses; and 13.6% have normal hearing spouses. The later the onset of hearing loss, the higher the probability that a deaf person will marry a normal hearing person. Oral deaf people tend to marry normal hearing people and deaf persons living in the mainstream are more likely to have normal-hearing partners.

Since the majority of Deaf people marry deaf spouses (Jacobs, 1980; Rainer, Altshuler, Kallman, & Deming, 1963; Schein, 1968; Schein & Delk, 1974), the families comprised of deaf parents of deaf children, for the most part, have done well in raising their children. The primary reason these families do well is

because of the parents' experience with deafness, their use of manual communication in the home, and their healthy acceptance of their children's deafness (Harris, 1978; Meadow, 1967; Schlesinger & Meadow, 1972).

Deaf children of deaf parents learn American Sign Language and progress through developmental stages that are equivalent to hearing children learning spoken languages (Bellugi & Klima, 1972; Wilbur & Jones, 1974). Deaf children of deaf parents have an advantage in that they develop more normally in psychological, cognitive, linguistic, and familial areas than their peers who have hearing parents (Furth, 1966; Schlesinger & Meadow, 1972; Moores, 1978; Meadow, 1980). Superior performance in academic skills have been also been reported for deaf children of deaf parents (Balow & Brill, 1975; Levine, 1976, Brill, 1970, Stuckless & Birch, 1966).

Erting (1982) identified the micro-, meso-, and macro-systemic influences of the deaf parent, the hearing parent, the deaf child of deaf parents, and the deaf child of hearing parents. The micro-systemic influences include the physical, mental, emotional and experiential qualities of the individual. The interactive experiences with the meso- and macro- level influences form the basis of personality characteristics, values, orientations, and conscious decisions and choices that an individual makes (Erting, 1982).

In the model of the deaf parent, developed by Erting (1982) the deaf ethnic group refers to the social, religious, professional and political groups organized around issues central

to Deaf culture. The individual's personal beliefs about, evaluations of, and reactions to any of the spheres of influence produce feedback that affects subsequent behavior (Fishbein & Ajzen, 1975). Deaf parents interact within this group to create, affirm, and comment upon the Deaf culture (Erting, 1982).

The model of the hearing parent of a deaf child, that Erting (1982) presented, lacks the deaf cultural component. The hearing parents may not have the support of this group. The deaf children of deaf parents have the deaf cultural group available to them and interact with that group as a result of their parents' participation. The child is not a fully participating member by choice (Erting, 1982).

The deaf child of hearing parents has no Deaf cultural group available as a primary reference group or interactional possibility. Most of this deaf child's interaction with other deaf children and adults occurs within the educational establishment (Meadow, 1982; Erting, 1982; Bienvenu & Colonomos, 1986). These deaf children may have some exposure to the Deaf cultural group through interaction with deaf peers who have Deaf parents.

Noting the differences in the variables that impinge upon the distinct family of origin groups, the deaf parents and the hearing parents, it seems that these factors should be taken into account when planning educational programming for deaf children. Factors such as parental hearing status, membership in the deaf community, sociolinguistic background, socioeconomic status, and parental goals and expectations are usually not treated as having implications for educational programming (Erting, 1982).

Employment. When deaf students graduate from high school, many of them are poorly prepared for independent life (Harris, 1982). Many of them have major deficits in personal, emotional, social and prevocational development according to Harris (1982). Many have limited financial resources and must live at home with their parents. On the other hand, many deaf adults were prepared for independent living, have good jobs and lead productive roles in mainstream society as well as in the deaf community (Jacobs, 1980). However, some deaf adults do have difficulty developing an understanding of their rights, responsibilities and privileges as an employee, a member of the community, a taxpayer, and as a citizen of the United States. This lack of understanding and acceptance of the deaf individual is carried over into the employment world.

Deaf people are a highly employable group, but due to their inability to speak the language of the dominant culture and their low educational achievements, they are underemployed according to Sussman (see Friedman, et. al., 1967) and Higgins (1980). From an employment perspective, deaf persons are not operating at or near their level of potential.

Printing was a vocation that was often chosen for deaf people because it was felt that the noise levels in the print shops would not have any effect on them and they were able to work in noisy conditions. A great many deaf people became involved in the printing trade, even though they were aware that they had the ability to enter more challenging occupations. This group was relatively well educated, intelligent, and many were college grad-

uates. From this occupational group, the deaf community drew many of its leaders. Their trade prevented them from functioning at their potential in the occupational world, but they related to the deaf world (Friedman, et. al., 1967).

Leadership in Deaf culture in the United States demonstrated through its own elite group was the focus of the following study. Stokoe, Bernard and Padden (1980) examined the structure of this elite group through its communication network. The researchers' experience of participating, observing, and interacting with or in the Deaf culture enabled them to conduct their investigation. The investigators assembled a list of 33 of the likeliest persons for inclusion in a hypothesized elite group all of whom resided in Washington, D. C. This group included officers of state, national, and international deaf groups of various kinds. A personal interview with each person enabled them to rank the other 32, according to communicative contact.

Utilizing a sophisticated computerized sociometric technique, the investigators sketched the general power structure of the elite deaf group. Six of the members of the center of action group, that were linked with more subgroups than any other, held positions at Gallaudet College as deans and department heads. The other two members of that group were government printers. Several of the older members of the whole elite group worked as printers and were active in the printing trade unions before attaining full time academic positions.

A high educational level was the key characteristic of this deaf elite group. Gallaudet College employed 21 of the 33

members; 29 had earned degrees at Gallaudet, two had bachelor's degrees from other colleges or universities; 23 had master's degrees; and 11 had earned doctorates or had all but their dissertation completed. Only one female and one Black male were a part of the group.

Among the 33 in the deaf elite group, the level of oral and written English proficiency was high, however, the language used for the internal linkage of the group was some variety of American Sign Language. ASL was the native or first language of 13 of the 33, who began signing before age six. The use of ASL as the primary interactive language was essential to the communication network of the elite group. The study clarified the fact that those who were leaders in the Deaf community tended to be those born deaf or who became deaf in infancy. According to Stokoe, et al., (1980):

The powerful effect of enculturation within the child's immediate family instead of at school and of learning the language and standards of the group in infancy instead of much later can be seen clearly in the elite group (p. 315).

Six of the 33 had deaf parents representing about twice the proportion in the deaf population generally. The investigators found that those born deaf from birth or infancy, those with deaf parents, and those who began signing early in life emerged as leaders of the Deaf culture (Stokoe, et al., 1980), emphasizing the significance of using sign language as a natural language as early as possible.

Within the framework of mainstream society the scenario looked very different in past decades. In 1959, Lunde and Bigman examined the occupational and economic position of 10,101 deaf



persons. They concluded that deaf persons worked mainly as skilled and semi-skilled workers, had an average income lower than that of the general population, and showed little occupational mobility.

Boatner, Stuckless and Moores (1964) examined the occupational status and opportunities for young deaf adults in New England. Consistent with the Lunde and Bigman (1959) study, deaf persons continued to exhibit underemployment, lower economic status and less job mobility than the general population. Kroneberg and Blake (1966) replicated the Boatner, et al., study (1964) in several southern and southwestern states and came to the same conclusions. These investigations were limited with respect to an underrepresentation of minorities, i.e. women and the elderly (Lunde & Bigman, 1959), and limited geographical populations (Boatner, et al., 1964).

Powers and Lewis (1976) sampled 180 deaf graduates in Pennsylvania. Approximately 78% of the hearing impaired graduates in their sample were employed in machine trades, service, and clerical and sales positions. Fifty-five percent of the graduates surveyed earned less than \$500 per month.

In 1968, Crammatte surveyed 100 deaf people who were employed for a minimum of three years in positions listed as professional, technical and kindred workers. This population included workers whose communication had to be visually oriented. Although the professional group indicated that skill in lipreading was helpful, optimum skill was not felt to be necessary for their continued professional employment.

Of the 87 respondents in this group, 25% held positions in engineering and 23% held positions related to chemistry. The majority worked in workroom or desk positions. Deaf-born respondents were employed in all occupational groups except business.

These earlier studies (Lunde and Bigman, 1959; Boatner, et al., 1964; Kronenberg & Blake, 1966, Crammate, 1968; & Powers & Lewis, 1976) reflected the underemployment that deaf people have experienced in the mainstream society. The investigation into the deaf elite (Stokoe, et. al., 1980) illustrates the other end of the spectrum. Within the environment of the Deaf culture, where communication mode is not a liability, deaf persons can work at their level of competence.

Within mainstream society, a number of variables can affect a deaf person's ability to obtain a job, perform on the job, retain the job, and advance in the job. Communicative ability, academic achievement and social skills are the major areas of difficulty for the deaf person in the work-force.

Communicative Ability. The typical development of language and speech in humans depends on an intact auditory system. Deafness interferes with this normal process and pervades all aspects of a deaf person's life (Schein & Delk, 1974). Communication difficulties manifest themselves in several ways for the deaf person. The deaf person may be unable to complete a job application or respond to questions in an interview due to the unfamiliarity with the vocabulary and language utilized in these situations. Communication difficulties can result from an inability to respond to fellow worker's questions or instructions on the job

(Crammate, 1968; Lunde & Bigman, 1959; Powers & Lewis, 1976). The inability to use a telephone is often viewed by a perspective employer as a liability (Schein & Delk, 1974). Since it is difficult for deaf adults to report in to their employer when they become ill or have a personal emergency, employers may view deaf individuals as unreliable (Jacobs, 1980).

When deaf individuals move from the deaf environment into the hearing world, they bring with them nonverbal behaviors which may be an additional handicapping factor. Jacobs (1972) noted that deaf people are often unaware of the physical noises that they make and that exaggerated facial expressions may have a negative effect on the communication of deaf persons with those around them.

Ouellette (1982) investigated the factors that were distracting as well as facilitating in the communication process between deaf and hearing persons. Nineteen prelingually deaf subjects, ages 18-25, were selected from clients enrolled in a university program for the hearing impaired. The hearing losses of the subjects were at least 70dB in the better ear, unaided, and the subjects relied primarily on manual communication.

Hearing subjects, ages 18-25, were volunteer students in the Communicative Disorders and Speech Communication departments, as well as from on-campus dormitories. These subjects had not had extensive contact with hearing impaired adults in the past, nor were they familiar with sign language. Hearing and deaf subjects were told that they had ten minutes to complete a task of exchanging basic information about each other as specified on a

questionnaire. They could use any method of communication except writing on paper. Subjects were further instructed to depress a foot pedal located in front of them whenever the subject felt uncomfortable or distracted. Interactions were video-taped and debriefing began at the end of the ten minute period.

Hearing subjects did not single out any one factor or behavior as distracting, but reacted to the innate frustration and confusion of the face to face encounter with deaf adults. The nonverbal behavior of the deaf adults appeared to be very different from the nonverbal communication of a hearing person. When verbal communication did not suffice for effective communication, the deaf adult was more likely to use sign language, fingerspelling, writing in the air and directional pointing.

Hearing subjects appeared to understand the nonlinguistic behaviors of deaf adults and were tolerant of the differences in nonverbal behaviors that the deaf adults displayed. The investigator recognized the limitations of that particular volunteer small sample, the artificial setting, as well as the lack of measures used in data analysis which would have allowed for comprehensive, statistical analysis of the differences between and within deaf and hearing subjects. The investigator (Ouellette, 1982) instead classified and described the nonverbal behaviors exhibited by deaf adults. These behaviors included facial expressions, vocal behaviors and characteristics, and gestures and body movement, literal, and non-literal.

Socioeconomic Status. The socioeconomic status of deaf adults is directly related to their employment situation. Except

for a few cases, the economic distribution of the deaf population is considerably below that of the general population (Jacobs, 1980; Boatner, et. al., 1964; Lunde & Bigman, 1959; Kroneberg & Blake, 1966; Crammatte, 1968).

Schein (1974) summarized the employment and income status of deaf adults by stating that underemployment appeared to be a greater problem for deaf adults than the general population. Deaf adults are penalized and disadvantaged when competing for positions and promotions. The median income for deaf males in 1976 was \$9,449 compared to \$5,411 per year for deaf females (Schein & Delk, 1978).

In summary, recent research in the field of deafness has revealed a marked shift from comparing hearing and deaf individuals to viewing deaf persons as members of a minority culture, with their own language, values, attitudes, and behaviors. This shift from a pathological model of deafness to a social investigative model revealed a need for theoretically informed research in virtually all areas related to deafness and the socialization process. Noting the differences in the variables that impinge upon the distinct family or origin groups, deaf parents and hearing parents, these factors need to be taken into consideration in planning educational programming for deaf children. Although professionals who work with deaf children, adolescents, and adults cannot change the fact of deafness, an educational environment that acknowledges and respects the language, attitudes, and values that are prevalent in Deaf culture can be provided.

### III. METHODOLOGY

This chapter includes the Statement of the Problem and a description of the methods that were utilized for the collection of information to answer the research questions. First, the pilot study sample and population will be described. Because the questions addressed in this descriptive research study were aimed at discovering relationships and interactions among certain variables in real social settings and because of the unique communication abilities of the deaf population, an interview format was chosen. Pilot survey information was recorded by the investigator to collect the information needed for this research project (Van Dalen, 1979). The investigator signed and/or spoke all of the questions for the subjects in their preferred mode of communication (oral, ASL, Pidgin sign, Signed English) and the subjects will be permitted to read the questions. Next, activities carried out in the developing and piloting of the survey instrument, Deaf Culture Intentionality Scale, the rationale for and the description of the other research instruments will be reviewed and finally, data analyses will be described.

#### A. Statement of the Problem

The purpose of this pilot study was to compare two groups of young deaf adults between the ages of 20 and 37, one whose primary family of socialization is hearing, and one whose primary family of socialization is deaf, to determine whether or not

differences exist between the two groups by young adulthood, on the sociocultural factors of identification with Deaf cultural beliefs, participation, and frequency of participation in bi-cultural adaptive networks, experience with sign language, and Index of Social Position.

This was achieved by interviewing young deaf adults between the ages of 20 to 37 years concerning their identification with deaf cultural beliefs, their participation, and frequency of participation in adaptive networks within the deaf community, i. e. social, religious, professional, and political groups, their educational experience with sign language, and their educational level, profession, and economic status.

#### Research Questions

The following questions were addressed in the design and data analyses of the pilot study:

1. Are there significant differences between young deaf adults whose primary family of socialization is deaf (YADP) and young deaf adults whose primary family of socialization is hearing (YAHP), with respect to identification with the Deaf cultural beliefs ?
2. Are there significant differences between YADP and YAHP with respect to educational experience with sign language?
3. Are there significant differences between YADP and YAHP was refelected in their Social Class position score?
4. Are there significant differences between YADP and YAHP with respect intentionality to engage in adaptive networks within the deaf community?

## B. Population and Sample

The target population for the pilot study was young deaf adults between the ages of 20 and 37 in the Southwestern Pennsylvania area. The early adulthood period was selected based on Havinghurst's (1952) developmental tasks describing adult growth. The tasks involved in early adulthood (ages 18-30) include selecting a mate, learning to live with a marriage partner, starting a family, rearing children, managing a home, getting started in an occupation, taking on civic responsibility and finding a congenial social group. Since deaf individuals generally require more years of education and are delayed socially and emotionally as compared to hearing adults, the period of early adulthood began at age 20 and extended to age 37 for the purposes of this investigation.

Sampling Procedure. Twenty-four subjects were recruited from a population of young deaf adults, twelve whose primary family of socialization was deaf, and 12 whose primary family of socialization was hearing, in the Southwestern Pennsylvania area. Due to the unique characteristics of this population, a purposive non-randomized volunteer sample was obtained through use of a snowball sampling technique (Sudman, 1976) utilized for locating rare populations. This technique has been used to apply to a variety of procedures in which the initial respondents were selected by probability methods, but in which additional respondents were then obtained from information provided by the initial respondent. The major sample bias resulting from snowball sampling is that persons who are well-known have a higher probability of being mentioned than does the isolate, or less well-known person.



For special rare populations that are not sampled completely, snowball sampling variance estimates do not include estimates of possible sample biases, but they do indicate what would be expected from repeated snowball samples selected in the same way.

The Western Pennsylvania TDD/TTY Directory for 1986-87 served as a source for beginning contacts with deaf individuals. The first individual contacted was asked to give a referral of another deaf person for inclusion in the sample.

Individuals were also recruited through personal contact by the investigator in organizations patronized by deaf individuals i. e., social clubs, religious, professional organizations, to include those individuals who did not have TTY's or the ability to use them. Criteria for inclusion in the sample was that subjects' age range was between 20 to 37 and that primary family of socialization was known. Upon initial contact, the individual was advised of the purposes and objectives of the study and informed of the confidentiality of the information to be obtained. When the individual agreed to participate, an appointment was made for an interview in their home or in an appropriate meeting place.

### C. Instrumentation

Development of the Deaf Culture Intentionality Scale began with the identification of a set of attributes relevant for the subject population under investigation, deaf adults. The attitude object in this case was Deaf cultural identity. Each of the statements associates the attitude object, Deaf culture, with some other concept or attribute. According to Fishbein and Aj-

zen's (1975) probabalistic definition of belief, an object and an attribute are perceived to be either associated to some degree or not to be associated at all. There can be no negative association since probabilities cannot take on negative values (Fishbein & Ajzen, 1975, p. 60).

The major resources utilized for identification of these beliefs included a review of the pertinent literature (Jacobs, 1980; Higgins, 1980; Johnson & Erting, 1982; Erting, 1982; Padden, 1980; Meisegeier, 1982; Padden & Markowicz, 1975; Jacobs, 1980; Stokoe, Bernard, & Padden, 1980; Bienvenue & Colonomos, 1986).

Development and Piloting the Instrument. The preliminary form of the Deaf Culture Intentionality Scale (DCIS) was developed, based on a literature review from which the investigator determined the most frequently elicited beliefs which Deaf individuals held within Deaf culture. These included the following beliefs about hearing loss, language and communication modes, educational background, employment, friendship, marriage, children, and social and cultural affiliations prevalent in Deaf culture:

1. Deaf people view deafness as a positive experience.
2. Deaf people would like to marry other Deaf people.
3. Deaf people want to have Deaf children.
4. Residential school was like a second home for Deaf people.
5. Deaf people like to use sign language to communicate with their deaf friends.
6. Writing skills are more important than speech to

Deaf people.

7. Deaf people prefer to socialize with other Deaf people.
8. Deaf people are underemployed because of their inability to communicate with hearing people.
9. Intelligible speech is not something that all Deaf people can develop.

These beliefs were the basis of determining the items on the Deaf Culture Intentionality Scale (DCIS). The DCIS was developed within the framework of the Fishbein and Ajzen Prediction of Intention Model more currently known as the theory of Reasoned Action (1980). This model is an expectancy-value model utilized to determine attitudinal and subjective norm components of an individual's intention to perform a given behavior. The elements which form intention are the attitudes of the individual about the behavior, and the attitudes of the individual's subjective norms. According to this expectancy-value model, attitudes are equal to the summation of an individual's beliefs about a behavior, and the evaluation of the consequences of engaging in that behavior, and that the subjective norms of the individual are equal to the product of the referent groups' beliefs about the behavior, and the individual's motivation to comply with the subjective norm group. Thus, a person's evaluation of the attribute contributes to his attitude in proportion to the strength of his belief. This approach postulates an informational basis for the formation of attitude.

Psychologists and sociologists have utilized the attitude

concept while theorists dealing with groups and societies have utilized the concept of social norm. By including an attitudinal and a normative component, the theory of "Reasoned Action" (Fishbein, 1967), emphasizes the importance of both concepts and provides a bridge between the two approaches to the study of human behavior.

Within the conceptual framework of this model, an attitude represents a person's general feeling of favorableness or unfavorableness toward some stimulus object, behavior, or concept. As a person forms beliefs about an object, that person automatically acquires an attitude toward that object. Although persons' attitudes may change as a function of variations in their belief systems, at any point in time, persons' attitudes toward an object may be viewed as determined by their salient set of beliefs about the object.

The beliefs identified in the literature established the object-attribute link to identity with the Deaf culture. The most frequently elicited beliefs are considered the modal salient beliefs of a given population, in this case, deaf adults. Although a person may hold a large number of beliefs about any given object, it appears that only a relatively small number of beliefs serve as determinants of a person's attitude at any given point in time. Research on attention span, comprehension, and information processing suggest that an individual is capable of attending to or processing only five to nine items of information at a time (Miller, 1956; Woodworth & Schlosberg, 1954; Mandler, 1967). Fishbein and Ajzen (1975) argue that a person's attitude toward an

object is primarily determined by no more than five to nine beliefs about the object. These are the beliefs that are salient at a given point in time. Based on the above assumptions, nine items were used as the basis for the belief strength measure on the DCIS.

According to Fishbein and Ajzen (1975), "The concept 'attitude' should be employed only where there is clear evidence that the obtained measure places the concept on a bipolar affective dimension" (p. 56). In order to measure persons' attitudes toward an object, concept, or behavior ( $A$ ), one can obtain measures of the strength of individuals' beliefs ( $b_i$ ) that the object has certain attributes and measures of their evaluations ( $e_i$ ) of each attribute. The belief-strength associated with a given object-attribute link is then multiplied by the person's evaluation of the attribute involved, and the resulting products are summed. This sum serves as an estimate of attitude toward the object, attribute, or behavior under consideration (Fishbein & Ajzen, 1975).

The first part of the DCIS is designed to measure belief strengths of the nine modal salient beliefs on a bipolar affective dimension ranging from not agree, agree some, agree moderately, agree often, and agree completely. These nine items will be scored on a 0 to 100 scale, the higher the number the higher the probability of a general feeling of favorableness toward the stimulus object, Deaf culture.

To assess  $b_i$ , the subject will be asked to indicate level of agreement with a statement that links each behavior to a speci-

fic outcome (Deaf Cultural Identity) on a scale ranging from 0 to 100. For example:

"Deafness is a positive experience".

0	25	50	75	100
Not Agree	Agree some	Agree moderately	Agree often	Agree completely

To assess the  $e_i$ , the subject will be asked to rate the extent to which s/he feels favorable or unfavorable about the consequences (being positive) and of the attribute (deafness) on a bipolar scale ranging from -3 to +3. For example; Rate the extent to which you feel favorable or unfavorable about:

being deaf

-3	-2	-1	0	+1	+2	+3
Unfavorable			Doesn't Matter			Favorable

The second part of the instrument was designed to include an assessment of the respondents' evaluation of each belief and their social norm (SN). According to Fishbein and Ajzen (1975), the second or normative component of the theory, the subjective norm (SN) deals with the influence of the environment on the belief. The potential reference groups or individuals whose expectations are perceived to be relevant will vary with the behavioral situation. In some instances, the expectations of one's family or friends may be most important; in others, it may be the expectations of his/her workmates or society at large that are most influential. Since friends are one of the referent groups which are more important to a young adult and shape a person's attitude, the  $b_i$  and  $m_i$  components were assessed in terms of this referent group of individuals.

The SN, the  $b_i$  and  $m_i$  components were assessed through one referent group, deaf friends. For the first behavior, one item determined the  $b_i$  of the SN in which the subject was asked to rate the extent to which s/he believed that the referent in question thought s/he should or should not perform that behavior on a scale ranging from -3 to +3. For example:

"My deaf friends think

0	25	50	75	100
should not	should sometimes	should often	should most of the time	should always

experience deafness as positive."

In order to assess the  $m_i$  (motivation to comply) with the referent, the subject were asked to rate the extent to which s/he wanted to comply on a scale ranging from -3 to +3. For example:

"In general

-3	-2	-1	0	+1	+2	+3
I accept			it doesn't matter			I reject

my deaf friends' views on:

experiencing deafness as positive."

After the construction of the preliminary DCIS, two doctoral students in the field examined the items on the preliminary instrument for face validity. One of the students is the daughter of Deaf parents, and the other is a deaf adult who lost her hearing at three and a half years of age. Both have had extensive experience with and within the deaf community. Based on their recommendations, some items were revised and some items were eliminated from the pilot instrument.

The remaining items were randomized by putting the

total numbers into a box from which the investigator selected the numeration sequence of items to be used in the pilot instrument. These items were administered directly to a pilot sample of 24 subjects, young deaf adults (8 females, 16 males), ages 20 to 37, selected through the use of a snowball sampling technique and through personal contact with deaf individuals at their local social club. The subjects represented well-educated persons to school dropouts, persons at various income levels, those whose principal mode of communication was oral as well as those oriented to manual communication. The data was gathered by personal interviews, and persons, not households, were the sampling units. The subjects were asked to respond to all of the items on the evaluation of their beliefs and their subjective norm. An interviewer was trained during the pilot study to work with the investigator. The interviewer responded to the survey and any questions concerning the measures were discussed. The interviewer accompanied the investigator on several interviews during the course of the pilot study and completed some of the interviews independently.

An estimate of each respondent's attitude was obtained as follows. The symbolic formulation for determining the attitude toward the object or behavior and the respondent's evaluation of performing that behavior is as follows:

$$A_0 = \sum_{i=1}^{n+1} b_i e_i$$

where  $b$  is the belief that holding that belief  $O$ , leads to consequences or outcome  $i$ ;  $e$  is the person's evaluation of outcome  $i$ ; and  $n$  is the number of beliefs a person holds about  $O$  (Fishbein &



Ajzen, 1975, p. 301).

To quantify the attitude component, the product of the  $b_i$  and  $e_i$  for each respondent was calculated for each belief. For example, each subject's  $A_0$  about each belief was obtained by multiplying  $b_i \times e_i$  for each belief. Then the general subject attitude for all beliefs was obtained by summing the  $A_0$  for each individual belief for each individual subject. This resulted in a general measure of attitude toward the set of Deaf Cultural beliefs, which was equal to the sum of beliefs and evaluations. The theoretical range of scores on this measure was -2700 to +2700.

According to the theory, the general subjective norm is persons' perception that most people who are important to them think they should or should not perform the behavior in question. The general subjective norm is determined by the perceived expectations of specific referents, individuals, or groups, and the persons motivation to comply with those expectations and is represented by the formula:

$$SN = \sum_{i=1}^n b_i m_i$$

where  $b_i$  is the normative belief;  $m_i$  is the motivation to comply with referent  $i$ ; and  $n$  is the number of relevant referents (Fishbein & Ajzen, 1975, p. 302).

The respondents' perceptions of their subjective norm group was scored in the same way as attitude, determining the  $b_i$  of the subjective norm, their referent group of friends perceptions as well as the  $m_i$ . The  $b_i$  and  $m_i$  were multiplied to determine the subjective norm component. The nine SN scores for each subject were summed to obtain a general measure of each respon-

dent's subjective norm for the set of Deaf Cultural beliefs. The theoretical range of scores on this measure is -2700 to +2700. This component refers to perceived pressures to perform a given behavior and the subject's motivation to comply with those pressures. Intentionality is represented by the following formula:

$$I = (A)_0 w_1 + (SN) w_2$$

The items on the Deaf Culture Intentionality Scale indicate: beliefs deaf individuals hold toward having a hearing loss, toward using particular language and communication modes, toward their educational background experiences, toward their employment, toward friendship, marriage, children, and social and cultural affiliations; their evaluations of those beliefs, as well as what they think their subjective norm group believes and their degree of motivation to comply with their subjective norm.

Language Background Questionnaire (LBQ). Based on the work of Hoffman (1934), Woodward (1973), and Hatfield, Caccamise, and Siple (1978), a multiple-choice and fill-in-the-blank questionnaire will be utilized to gather data on Deaf adults' experience with sign language (Appendix B). Items concerning age of onset of hearing loss, parental hearing status communication usage by parents, hearing status of other family members, subjects' knowledge of manual communication, age and source of sign language acquisition, types of schools attended and communication methods used, and communication preferences in social situations. The construct of this measure is level of experience with sign language. Coding of the items is located in Appendix C. The theoretical range of

scores on this measure is 2 to 41, the lower the score, the greater the experience with sign language.

The investigator signed and/or spoke the questions in the subjects' preferred communication mode (Oral, ASL, Pidgin Sign, Signed English, etc.) and the subjects were permitted to read the questions. All of the LBQ items were completed for all of the subjects in the study.

SES Measure. The instrument used to collect data for determining socioeconomic information (Appendix D) was the instrument developed by Beryl Jackson (1982). This included information on work status, educational attainment, age, and income.

To score the SES measure, the Two-Factor Index of Social Position (Hollingshead, 1957) was utilized. This scale ranks professions into different groups and businesses according to their size and value. The seven positions are: (1) executives and proprietors of large concerns and major professionals; (2) managers and proprietors of medium concerns and minor professionals; (3) administrative personnel of large concerns, owners of small independent businesses, and semi-professionals; (4) owners of little businesses, clerical and sales persons, and technicians; (5) skilled workers; (6) semi-skilled workers; and finally, (7) unskilled workers.

The premise of this scale is the assumption that different occupations are valued differently by the members of society. The hierarchy ranges from the low evaluation of unskilled physical labor toward the more prestigious use of skill, through creative talent, ideas, and management of people. The ranking of occupa-

tional functions implies that some people exercise control over the occupational pursuits of other people.

The other education scale was developed, based on the assumption that men and women who possess similar educations tend to have similar tastes and attitudes and tend to exhibit similar behavior patterns. The educational scale is divided into seven positions also which include: (1) graduate and professional training; (2) standard college or university graduation (4 year degree); (3) partial college training (one year minimum); (4) high-school graduation; (5) partial high school (completed 10th or 11th grade); (6) junior high school (7, 8, 9th grades); and (7) less than 7 years of school.

Social class is measured by determining the number of years of school completed and occupation. The scale value for education is multiplied by a factor weight of 4 and the scale for occupation by a factor weight of 7.

To calculate the Index of Social Position Score for an individual, the scale value for occupation is multiplied by the factor weight for occupation, and the scale value for education is multiplied by the factor weight for education. The resulting score is assumed to be an index of the individual's position in the class structure of the community. The scores on the Index range from 11 to 77, a score of 11 representing the highest position an individual can reach by a combination of outstanding educational and occupational achievements. To receive a score of 11, an individual must have a graduate or professional degree and be engaged in a profession or high executive position. A score of

77 is assigned to an individual with less than 7 years of schooling who is an unskilled laborer. All degrees of education and types of jobs fall within these extremes. A student who was enrolled in college or training of some kind was categorized into the profession that they intended to occupy for the purposes of the pilot study.

The scores group themselves into five clusters, and a single score is assigned to each cluster. Differential behavior patterns are associated with different social levels. The most meaningful breaks for the purpose of predicting the social-class position of an individual are as follows:

<u>Range of Computed Scores</u>	<u>Social Class</u>
11-17	I
18-27	II
28-43	III
44-60	IV
61-77	V

For example:

<u>Factor</u>	<u>Scale</u>	<u>Score</u>	<u>Factor</u>	<u>Weight</u>	<u>Score x Weight</u>
Occupation		7		7	49
Education		7		4	28

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Index of Social Position Score      77

A score of 77 indicates Social Class V status. For the purposes of the pilot study, students were classified by profession according to the area in which they were studying.

Adaptive Networks Questionnaire. (ANQ). The ANQ questionnaire (Appendix D), adapted from relevant portions of Taylor's measure entitled "Estimating Adaptive Networks", from Theories of Intimacy (Taylor, 1985) was used to evaluate the attitudinal and

subjective norm components of subjects' intentionality to participate in deaf community political, social, and religious organizations outside of the home as well as the frequency of participation in these adaptive networks. "The theory can deal with behavioral intentions at any level of specificity" (Fishbein & Ajzen, 1975, p. 303) as long as the measures of attitudinal and normative components are calibrated at the same level of specificity. First, subjects were asked to name specific social, religious, professional and political groups with which they have the most contact outside of the home. The subjects indicated how often they have contact with those specific groups. Then, based on the Intentional Model formulas, the subjects were asked to rate the extent to which they agreed or disagreed with the statements; each attribute was measured on the following scale: Not agree (0), agree some (25), agree moderately (50), agree often (75), and agree completely (100).

1. Attending church or synagogue is an enjoyable social experience.
2. Social clubs provide opportunities to meet other people like myself.
3. Athletic organizations are fun.
4. Eating and drinking at restaurants or bars is relaxing.
5. Attending school functions is helpful.
6. Supporting Community organizations is rewarding.
7. Participation in State and National organizations represents my interest.

8. Interpreter services facilitate communication between deaf and hearing people.

9. Supporting political groups or organizations makes people aware of the rights and responsibilities.

In the second part of the measure, the subjects were asked to indicate the extent to which they felt unfavorable or favorable about the following statements on a -3 to +3 scale. For example, in the case of the specific intention, the "attitude toward attending a specific church or synagogue once a week" would indicate the name of the church/synagogue and the frequency with which one would attend:

-3	-2	-1	0	+1	+2	+3
Unfavorable			Doesn't matter			Favorable

attending \_\_\_\_\_.

(church/synagogue - at specified frequency)

The appropriate subjective norm would be the subject's belief that most people who are important to him/her ( deaf friends) think that they should (should not) attend that specific church once a week.

The ANQ was scored in the same manner as the DCIS to determine the subjects' intention to participate in church or synagogue, social clubs, athletic organizations, restaurants or bars, schools, community organizations, state organizations, national organizations, use interpreter services, and participate in political groups or organizations. The theoretical range of scores for the ANQ was -2700 to +2700.

#### IV. RESULTS AND DISCUSSION

The Microsoft File and Stat-View Computer programs were utilized for loading the database and for all computations. An item analyses of the nine items on the DCIS measuring subjects' attitudes and their evaluation of that attitude revealed some interesting findings. For both groups ( $N = 24$ ), deaf adults of deaf parents and deaf adults of hearing parents, the responses to item 1, Deafness is a positive experience, revealed favorable attitudes for 10 of the 24 subjects. For item 2, Deaf people prefer communicating in Sign Language, only five of the total respondents did not agree. For item 3, Deaf people prefer having Deaf children, 11 of the total respondents did not agree. For item 4, Deaf people prefer having Deaf spouses, 9 of the total respondents did not agree. For item 5, Deaf people prefer to use speech in communicating with hearing people, 7 of the total respondents did not agree. For item 6, Deaf people prefer to use writing skills when communicating with hearing people, 6 of the total respondents did not agree. Item 7, Deafness means being underemployed, elicited 7 respondents who did not agree. Item 8, Deaf people prefer socializing within the deaf community, elicited 21 respondents who agreed strongly with this item. Item 9, Deaf people experience residential school as a second home elicited 10 not agree responses.

Means and standard deviations were calculated and an



unpaired t-test was conducted for the young deaf adults of deaf parents (YADP) and the young deaf adults of hearing parents (YAHP) with 12 subjects in each group. Group 1 (YAHP) and group 2 (YADP) were compared on each of the measures.

In order to answer question one, means and standard deviations were computed for the YADP group and the YAHP group on the DCIS. A one tailed t-test of independent means of the total A<sup>0</sup> and SN scores was conducted (Minium, 1978) and tested at the .05 level of significance.

Table 1 presents results means, standard deviations, and the results of the t-test on the DCIS measure of attitudes toward the object, Deaf culture.

Table 1  
Results of T-test for the Total Scores on the  
DCIS AO

Group	N	Means	Std. Dev.	t-value	Prob.
YAHP	12	769.17	434.93	-.156	.4388
YADP	12	797.92	468.37	--	--

Table 2 presents the means, standard deviations, and the results of the t-test for the DCIS, subjective norm.

Table 2  
Results of T-tests for Total Scores on DCIS SN

Group	N	Means	Std. Dev.	t-value	Prob.
YAHP	12	616.67	369.28	.391	.3499
YADP	12	567.5	231.757	--	--

There were no significant differences between the two groups on the DCIS subjective norm measure.

Question two: Are there significant differences between YADP and YAHP with respect to experience with sign language? In order to answer question two, means and standard deviations were calculated for the two groups, YADP and YAHP LBQ educational background scores. A one tailed t-test of independent means of LBQ scores will be conducted and tested at the .05 level of significance. Table 3 presents the means, standard deviations, and the results of the t-test for the total scores on the LBQ.

Table 3  
Results of the T-test for the LBQ.

Group	N	Means	Std. Dev.	t-value	Prob.
YAHP	12	25.5	8.19	3.124	.0025
YADP	12	15.25	7.89	--	--

The significant differences which resulted were expected

due to the fact that most deaf parents use sign language with their deaf children from birth which would account for the differences in the groups.

Question three: Are there significant differences between YADP and YAHP with respect to Social Class? In order to answer question three, means and standard YADP and YAHP on the Social Index of Position Index and Social Class scores were calculated. A one tailed t-test of independent means was conducted and tested at the .05 level of significance.

Table 4 presents the means, standard deviations, and results of the t-test on the SIP measure.

Table 4  
Results of the T-test on the SIP

Group	N	Means	Std. Dev.	t-value	Prob.
YAHP	12	28.5	18.01	-1.376	.0913
YADP	12	37.58	14.08	--	--

There were no significant differences between the groups on the SIP.

In order to answer question four, means and standard deviations were computed for the YADP group and the YAHP group on the AN Questionnaire. A one tailed t-test of independent means of the total A and SN scores was conducted and tested at the .05 level of significance.

Tables 5 and 6 present the means, standard deviations, and the results of the t-tests for the Adaptive Networks measure, A  
B

and SN.

Table 5  
Results of the T-tests for AD, A  
B

Group	N	Means	Std. Dev.	t-values	Prob.
YAHP	12	858.33	359.02	-.585 (A ) B	.2822
YADP	12	956.25	454.91	--	--

Table 6  
Results of the T-tests for AD SN

Group	N	Means	Std. Dev.	t-values	Prob.
YAHP	12	531.67	278.13	-.376 (SN)	.3554
YADP	12	579.17	338.35	--	--

There were no significant differences between the groups on the AN measure.

### Discussion

The dichotomous variables of age and sex were not analyzed at the pilot and differences in the groups on the DCIS, AN, and SIP if these variables are taken into consideration. Item means and standard deviations were calculated and a Spearman Brown split-half reliability coefficients were calculated on item totals (Van Dalen, 1979) for the DCIS attitude and subjective norm scores. The reliability coefficients were moderate to low, .63 and .38, respectively, revealing a need to look at the items more carefully.

Based on the results of the pilot study, A<sup>O</sup> and SN of the DCIS may not be as predictive of behaviors as the A<sup>B</sup> and SN on the AN i.e., perhaps attitudes toward behaviors may distinguish the cultural identity continuum more clearly and there may be differences due to the kinds of behaviors in which young deaf adults are actually involved.

On the other hand, the small sample size may not have revealed the differences that exist or perhaps by young adulthood, the differences in these two groups are not as great as a result of the deaf children of hearing parents having been already enculturated into the deaf community. The author plans to revise the instruments in future studies by making the DCIS and AN parallel by omitting the level of specificity aspect of the AN.

Empirical weights for the attitude and subjective norm components, proportional to their relative importance in the prediction of behavioral outcomes, are expected to vary with the kind of behavior, with the conditions under which the behavior is to be performed, and with the person who is to perform the behaviors. (Fishbein & Ajzen, 1975, pp. 302-303). These weights were not calculated at the pilot level.

### Conclusion

This application of the theory of reasoned action provides a means for better understanding of the extent to which young deaf adults identify with Deaf culture and their behaviors with respect to participation in adaptive networks of the deaf community. It also permits an illustration of the relationships among intentions, attitudes, beliefs, social groups, and social behaviors

within the deaf community.

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## APPENDICES

APPENDIX A  
DEAF CULTURE INTENTIONALITY SCALE



# DEAF CULTURE

## INTENTIONALITY SCALE

Code \_\_\_\_\_

USE THE FOLLOWING SCALE TO INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS

0	25	50	75	100
Not agree	Agree some	Agree moderately	Agree often	Agree completely

- \_\_\_\_\_ 1. Deafness is a positive experience.
- \_\_\_\_\_ 2. Deaf people prefer communicating in Sign Language.
- \_\_\_\_\_ 3. Deaf people prefer having Deaf children.
- \_\_\_\_\_ 4. Deaf people prefer having Deaf spouses.
- \_\_\_\_\_ 5. Deaf people prefer to use speech in communicating with hearing people.
- \_\_\_\_\_ 6. Deaf people prefer to use writing skills when communicating with hearing people.
- \_\_\_\_\_ 7. Deafness means being underemployed.
- \_\_\_\_\_ 8. Deaf people prefer socializing within the deaf community.
- \_\_\_\_\_ 9. Deaf people experience residential school as a second home.

USE THE FOLLOWING SCALE TO RATE THE EXTENT TO WHICH YOU FEEL FAVORABLE OR UNFAVORABLE ABOUT THE FOLLOWING STATEMENTS.

-3	-2	-1	0	+1	+2	+3
Unfavorable			Doesn't matter			Favorable

- \_\_\_\_\_ 1. experiencing deafness positively
- \_\_\_\_\_ 2. communicating in sign language
- \_\_\_\_\_ 3. wanting deaf children
- \_\_\_\_\_ 4. wanting a deaf spouse
- \_\_\_\_\_ 5. using speech in communicating with hearing people
- \_\_\_\_\_ 6. using writing skills in communicating with hearing people
- \_\_\_\_\_ 7. having to be underemployed
- \_\_\_\_\_ 8. socializing within the deaf community
- \_\_\_\_\_ 9. experiencing residential school as a second home

RATE THE EXTENT TO WHICH YOU FEEL YOUR FRIENDS THINK YOU SHOULD OR SHOULD NOT PERFORM THE FOLLOWING.

Most of my deaf friends think I

-3	-2	-1	0	+1	+2	+3
I should not			Doesn't			I should
			matter			

- ☐ 1. think deafness is a positive experience
- ☐ 2. communicate in Sign Language
- ☐ 3. want to have deaf children
- ☐ 4. want to have a deaf spouse
- ☐ 5. use speech to communicate with hearing people
- ☐ 6. use writing to communicate with hearing people
- ☐ 7. have to be underemployed
- ☐ 8. socialize within the deaf community
- ☐ 9. think of residential school as a second home

RATE THE EXTENT TO WHICH YOU DON'T WANT TO OR WANT TO DO WHAT YOUR FRIENDS THINK YOU SHOULD DO.

			In general			
-3	-2	-1	0	+1	+2	+3
I don't want to			doesn't			I want to
			matter			

do what my friends think I should do about

- ☐ 1. experiencing deafness as positive
- ☐ 2. communicating in sign language
- ☐ 3. wanting to have deaf children
- ☐ 4. wanting to have a deaf spouse
- ☐ 5. using speech to communicate with hearing people
- ☐ 6. using writing to communicate with hearing people
- ☐ 7. being underemployed
- ☐ 8. socializing within the deaf community
- ☐ 9. thinking of residential school as a second home

APPENDIX B  
LANGUAGE BACKGROUND QUESTIONNAIRE

LANGUAGE BACKGROUND QUESTIONNAIRE

Nancy Hatfield, Ph.D  
University of Rochester  
Rochester, New York  
1980

Date-of-Birth \_\_\_\_\_

Instructions: Please read the following questions carefully.  
Circle the appropriate letter(s) on your answer sheet and fill-  
in-the blanks.

1. How old were you when you became deaf or hard of hearing?
  - A. born deaf
  - B. born hearing, became deaf: \_\_\_\_\_ (how old?)
2. Are your parents:
  - A. both deaf
  - B. one hearing: \_\_\_\_\_ (who?) one deaf/hard of hearing: \_\_\_\_\_ (who?)
  - C. both hearing
3. Do your parents know sign language? Yes \_\_\_\_\_ No \_\_\_\_\_  
Fingerspelling Yes \_\_\_\_\_ No \_\_\_\_\_
4. How old were you when your parents learned sign/fingerspelling? \_\_\_\_\_
5. When you were growing up, how did your parents communicate with you? For example, did they use American Sign Language, Signed English, speech alone, fingerspelling, etc.?
6. Are any other family members deaf or hard of hearing?
  - A. brother(s) or sister(s): \_\_\_\_\_
  - B. grandparent(s) \_\_\_\_\_
  - C. other family members: \_\_\_\_\_
  - D. none
7. Do you know how to sign or fingerspell? \_\_\_\_\_
8. How did you learn sign language/fingerspelling (who taught you?) How old were you?  
Age:
  - A. family \_\_\_\_\_
  - B. friends \_\_\_\_\_
  - C. teachers \_\_\_\_\_
  - D. other \_\_\_\_\_

• 9. Where did you go to school? How old were you?  
Ages:      Name of school

- A. lived at residential school  
1. oral \_\_\_\_\_  
2. allowed sign language \_\_\_\_\_
- B. day classes/residential  
1. oral \_\_\_\_\_  
2. allowed sign language \_\_\_\_\_
- C. special classes in a hearing school \_\_\_\_\_
- D. hearing school \_\_\_\_\_
- E. other \_\_\_\_\_

10. How did your teachers communicate with you? (For example, American Sign Language, Signed English, speech alone, fingerspelling, etc.)

- A. preschool/nursery school: \_\_\_\_\_  
B. elementary/grammar school: \_\_\_\_\_  
C. junior high/middle school: \_\_\_\_\_  
D. high school: \_\_\_\_\_

11. You could understand your teachers better if your teachers used:

- A. sign language and speech together  
B. sign language alone  
C. speech alone  
D. an interpreter  
E. other: \_\_\_\_\_

12. How do you prefer to communicate with your friends? (For example, American Sign Language, speech and signs, speech alone, writing, etc.).

- A. deaf friends: \_\_\_\_\_  
B. hearing friends: \_\_\_\_\_

### Scoring of LBQ Items

Language Background Questionnaire item #2 will be used for group placement only and will not be scored: e.g. all subjects will have deaf or hearing parents. The remaining questions will be scored as follows:

- #1. Age of onset of hearing loss
  - A. born deaf = 0
  - B. born hearing, became deaf: \_\_\_\_\_ = 1
- #3. parental use of manual communication, before S age 12 (see also #4 and #5)
  - A. sign language yes, fingerspelling yes = 0
  - B. sign language no, fingerspelling yes = 1
  - C. sign language no, fingerspelling no = 2
- #4. (age of subject when parent learned to sign was scored)
- #5. (Due to the variety of answers possible to this question, this item will be used to supplement information in #3.)
- #6. hearing status of other family members both A and B
  - A. siblings(s) (no attempt made to distinguish older from younger siblings. = 0
  - B. grandparent(s) = 1
  - C. other distant relative (e.g., cousin, uncle,) = 2
  - D. none = 3
- #7. knowledge of sign or fingerspelling
  - yes = 0
  - no = 1
- #8. source of sign language input
  - A. family = 0
  - B. friends & teachers = 1
  - C. friends = 2
  - D. teachers = 3
- #9. types of schools attended  
(Using information from responses #9 and #10 together, this variable will be coded by age category, i.e., the setting the subject spent the majority of time in between ages: 0 to 5 years, 6 to 11 years, 12 to 15 years, and 16 and older. The types of schools will be coded as follows for each age category:

#9. continued:

- A. can't determine or don't know = 0
- B. Total Communication (TC) program in residential school, residential student = 1
- C. TC program in residential school, day student = 2
- D. TC day program in other than residential school = 3
- E. oral program in residential school, residential student = 4
- F. oral program in residential school, day student = 5
- G. oral day program in other than a residential school = 6
- H. public school for hearing (hearing classes) = 7

0 5 years =

6 11 years =

12 15 years =

16 + years =

#10. communication preference in social setting,  
deaf friends

- A. ASL, deaf sign, sign language, etc. = 0
- B. Sign English, speech and signs together, etc. = 2

APPENDIX C  
ADAPTIVE NETWORKS QUESTIONNAIRE



ADAPTIVE NETWORKS QUESTIONNAIRE  
Adapted from Dr. Jerome Taylor  
University of Pittsburgh, 1985

Circle marital status:    Married      Never Married      Widowed  
                                 Cohabiting      Divorced

A. Name the formal or informal persons, groups or organizations with which you have the most contact outside of the home.

1. Church or synagogue \_\_\_\_\_
2. Social Club(s) \_\_\_\_\_
3. Athletic Organizations \_\_\_\_\_  
\_\_\_\_\_
4. Restaurant(s) or Bar (s) \_\_\_\_\_  
\_\_\_\_\_
5. School(s) \_\_\_\_\_
6. Community organization(s) \_\_\_\_\_
7. State/National organization(s) \_\_\_\_\_
8. Interpreter Services \_\_\_\_\_
9. Political group or organization(s) \_\_\_\_\_

B. Use the following scale to indicate how often you have contact with each of the above individuals, groups, or organizations.

0	1	2	3	4	5
Not at all	Less than once per month	Once per month	Three times per month	Four times per month	More than once per week

- |          |          |
|----------|----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ |          |

USE THE FOLLOWING SCALE TO INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS.

- |           |            |                  |             |                  |
|-----------|------------|------------------|-------------|------------------|
| 0         | 25         | 50               | 75          | 100              |
| Not agree | Agree some | Agree moderately | Agree often | Agree completely |
- 
- \_\_\_\_\_ 1. Attending church or synagogue is an enjoyable social experience.
  - \_\_\_\_\_ 2. Social clubs provide opportunities to meet other people like myself.
  - \_\_\_\_\_ 3. Athletic organizations are fun.
  - \_\_\_\_\_ 4. Eating and drinking at Restaurants or bars is relaxing.
  - \_\_\_\_\_ 5. Attending school functions is helpful.
  - \_\_\_\_\_ 6. Supporting Community organizations is rewarding.
  - \_\_\_\_\_ 7. Participation in State/National organizations represents my interest.
  - \_\_\_\_\_ 8. Interpreter services facilitate communication between deaf and hearing people.
  - \_\_\_\_\_ 9. Supporting political groups or organizations makes people aware of their rights and responsibilities.

USE THE FOLLOWING SCALE TO RATE THE EXTENT TO WHICH YOU FEEL FAVORABLE OR UNFAVORABLE ABOUT THE FOLLOWING STATEMENTS.

- |             |    |    |                |    |    |           |
|-------------|----|----|----------------|----|----|-----------|
| -3          | -2 | -1 | 0              | +1 | +2 | +3        |
| Unfavorable |    |    | Doesn't Matter |    |    | Favorable |
- 
- \_\_\_\_\_ 1. attending \_\_\_\_\_  
(church/synagogue - at specified time)
  - \_\_\_\_\_ 2. meeting people at \_\_\_\_\_  
(social club - at specified time)
  - \_\_\_\_\_ 3. having fun at \_\_\_\_\_  
(athletic organization - at specified time)
  - \_\_\_\_\_ 4. eating and drinking at \_\_\_\_\_  
(restaurant or bar - at specified time)
  - \_\_\_\_\_ 5. attending \_\_\_\_\_ functions \_\_\_\_\_  
(school - at specified time)
  - \_\_\_\_\_ 6. supporting \_\_\_\_\_  
(Community organization - at specified time)
  - \_\_\_\_\_ 7. supporting \_\_\_\_\_  
(State/National organization - at specified time)
  - \_\_\_\_\_ 8. using an interpreter \_\_\_\_\_  
- at specified time)
  - \_\_\_\_\_ 9. supporting \_\_\_\_\_  
(Political group - at specified time)

RATE THE EXTENT TO WHICH YOUR FRIENDS FEEL YOU SHOULD OR SHOULD NOT PERFORM THE FOLLOWING BEHAVIORS.

Most of my deaf friends think

	0	25	50	75	100
I should never	should sometimes	should often	should most of the time	I should always	

  

- \_\_\_\_\_ 1. attend church/synagogue \_\_\_\_\_
- \_\_\_\_\_ 2. meet people at \_\_\_\_\_
- \_\_\_\_\_ 3. have fun at \_\_\_\_\_
- \_\_\_\_\_ 4. eat and drink at \_\_\_\_\_
- \_\_\_\_\_ 5. attend school functions at \_\_\_\_\_
- \_\_\_\_\_ 6. support \_\_\_\_\_
- \_\_\_\_\_ 7. participate in \_\_\_\_\_
- \_\_\_\_\_ 8. use an interpreter \_\_\_\_\_
- \_\_\_\_\_ 9. support \_\_\_\_\_

RATE THE EXTENT TO WHICH YOU ACCEPT OR REJECT YOUR FRIENDS' VIEWS ON EACH OF THE FOLLOWING STATEMENTS.

In general

-3	-2	-1	0	+1	+2	+3
I reject						I accept

my friends' views on:

- \_\_\_\_\_ 1. attending \_\_\_\_\_
- \_\_\_\_\_ 2. meeting people at \_\_\_\_\_
- \_\_\_\_\_ 3. having fun at \_\_\_\_\_
- \_\_\_\_\_ 4. eating and drinking at \_\_\_\_\_
- \_\_\_\_\_ 5. attending school functions at \_\_\_\_\_
- \_\_\_\_\_ 6. supporting \_\_\_\_\_
- \_\_\_\_\_ 7. participating \_\_\_\_\_
- \_\_\_\_\_ 8. using an interpreter \_\_\_\_\_
- \_\_\_\_\_ 9. supporting \_\_\_\_\_

APPENDIX D  
SES QUESTIONNAIRE

SES  
Beryl Jackson, Ph.D.  
University of Pittsburgh, 1982

List your children's ages \_\_\_\_\_

Please mark (x) the appropriate category as it relates to you, right now.

WORK STATUS:

<input type="checkbox"/> Professional	<input type="checkbox"/> Household Helper
<input type="checkbox"/> Semi-professional	<input type="checkbox"/> Semi-skilled
<input type="checkbox"/> Business	<input type="checkbox"/> Unskilled
<input type="checkbox"/> Clerical	<input type="checkbox"/> Homemaker
<input type="checkbox"/> Service	<input type="checkbox"/> Unemployed
<input type="checkbox"/> Sales	(How many months? _____)
<input type="checkbox"/> Retired	<input type="checkbox"/> Student

Mark (x) your highest educational attainment level.

Mark age (x) bracket

<input type="checkbox"/> Completed grade school	<input type="checkbox"/> 15-19 years
<input type="checkbox"/> Completed some high school	<input type="checkbox"/> 20-24 years
<input type="checkbox"/> Graduated from high school or GED	<input type="checkbox"/> 25-29 years
<input type="checkbox"/> Earned some college credits	<input type="checkbox"/> 30-34 years
<input type="checkbox"/> Graduated from a business or technical school	<input type="checkbox"/> 35-39 years
<input type="checkbox"/> Graduated from a 4-year degree college	<input type="checkbox"/> 40-44 years
<input type="checkbox"/> Earned some graduate credits	<input type="checkbox"/> 45-49 years
<input type="checkbox"/> Earned a master's degree	<input type="checkbox"/> 50-54 years
<input type="checkbox"/> Earned a doctorate degree	<input type="checkbox"/> 55-69 years
	<input type="checkbox"/> 70-74 years

Place a mark (x) before the income group that includes the total income for you (and your spouse or companion, if applicable) for the last year, before taxes. Include salaries, wages, dividends, interest profit, pensions, support from children, social-security income, and any other income.

1. <input type="checkbox"/> 0-1,999	8. <input type="checkbox"/> 8,000 to 8,999
2. <input type="checkbox"/> 2,000 to 2,999	9. <input type="checkbox"/> 9,000 to 9,999
3. <input type="checkbox"/> 3,000 to 3,999	10. <input type="checkbox"/> 10,000 to 10,999
4. <input type="checkbox"/> 4,000 to 4,999	11. <input type="checkbox"/> 11,000 to 11,999
5. <input type="checkbox"/> 5,000 to 5,999	12. <input type="checkbox"/> 12,000 to 12,999
6. <input type="checkbox"/> 6,000 to 6,999	13. <input type="checkbox"/> 13,000 to 14,999
7. <input type="checkbox"/> 7,000 to 7,999	14. <input type="checkbox"/> 15,000 to 19,999

15. <input type="checkbox"/> 20,000 to 24,999
16. <input type="checkbox"/> 25,000 to 29,999
17. <input type="checkbox"/> 30,000 to 34,000
18. <input type="checkbox"/> 35,000 or over.